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**MOLYCORP**

DIVISION OF  
OIL GAS & MINING

October 9, 1992

Mr. Don A. Ostler  
Director, Division of Water Quality  
Department of Environmental Quality  
288 North 1460 West  
Salt Lake City, UT 84114

Re: Request for Approval of Underground Storage of NORM,  
Small Fry Mine, San Juan County, Utah

Dear Mr. Ostler,

Molycorp is herein seeking your Division's approval to store NORM in the underground workings at the Small Fry Mine, San Juan County, Utah without a groundwater permit. The NORM consists of 20,000 yards of windblown vanadium-processed material dating from the 1920's and 1930's which was leftover from the operation of a small vanadium mill operated by a predecessor to Molycorp. Molycorp purchased the 80-acre property in 1933.

This material was designated as NORM by Larry Anderson, Director, Bureau of Radiation Control of the Utah Department of Environmental Quality. Mr. Anderson has advised us that licensing approval authority for the disposition of the NORM rests with the State of Utah through his Bureau. He has indicated to Molycorp that he would prefer to remove the material from its present location and to store it underground on patented lode mining claims nearby. Molycorp has complied with his request on how and what to characterize and analyze at the site.

Molycorp representatives recently located a remote potential underground storage site at the Small Fry Mine, located on six patented claims comprising 89 acres. The claims are owned by W. K. Enterprises, Moab, Utah. The Small Fry Mine is located 9 miles north of Molycorp's fee land.



An underground mine inspection was conducted with Mr. Holland Shepherd, of the Division of Oil, Gas and Mining, and Mr. Sal Venticinque, Area Geologist, U. S. Bureau of Land Management, Moab, Utah, on August 31, 1992. Mr. Shepherd subsequently distributed a memo summarizing his findings, a copy of which was forwarded to Mr. John Whitehead of your staff. The DEQ staff has informed MolyCorp that if it can be shown that this NORM material can be relocated to a dry underground mine site, where no contact with groundwater will occur; and where the average grade of the NORM is lower than that of the host mine, a groundwater permit may not be required.

In seeking your Division's approval, we are offering the following information and evidence.

We have reviewed U.S.G.S. Technical Publication 86 and have confirmed with Utah water rights representatives in Price that no water wells exist within a one mile radius of the Small Fry Mine.

Information regarding nearest evidence of depth to groundwater was obtained from Homestake's Regional Environmental Manager, Mr. Jerry Danni, for the LaSal No. 2 Mine, which is located 1/4 mile southeast of the Small Fry Mine. The LaSal No. 2 is essentially dry. The portal is at the surface in the Cutler formation at an elevation of 6,697 feet. The lowest elevation in the mine is 6,123 feet. This information, along with data from U.S.G.S. Technical Publication 86, which confirmed that the N aquifer is the shallowest aquifer in the area at an elevation of 6,000 feet, further corroborates the depth to groundwater in the immediate area. Numerous Union Oil wells were drilled 2-3 miles south of the Small Fry Mine and produce from the Mississippi Redwall Limestone Formation. No evidence exists of groundwater encountered during drilling operations.

The portal of the Small Fry Mine is located in uppermost Cutler formation at an elevation of 6,840 feet. The ore in the mine occurs in the Moss Back member of the Triassic Chinle Formation. Underground workings at the Small Fry Mine are, on average, 200-250 feet below the surface which is a dip-slope at 8 degrees southwest. The mine is located about 1-1/2 miles west and on the upthrown block of the Lisbon Fault. Formations on the top of the Lisbon anticline to the east have been removed by erosion, so that the portal faces east well above the broad expanse of Indian Draw, which drains to the south. Information regarding the geologic setting was forwarded to John Whitehead in a letter dated September 21, 1992, from Gary R. Morris.

The referenced letter also provided detailed information regarding the average grade of the NORM to be relocated to the mine, along with data pertaining to the average uranium grade remaining within the mine workings. Clearly, the average grade of the NORM (avg. .01% uranium) is much lower than the grade of ores remaining underground on exposed faces in the Small Fry Mine (0.10% - 0.30% uranium).



A copy of the underground workings of the Small Fry Mine (mined mostly by Ranchers Exploration and Hecla Mining Corporation) has been provided to John Whitehead and John Hulquist at DEQ and to Holland Shepherd. Molycorp plans to store the 20,000 yards of NORM in cross drifts within the more accessible upper part of the mine to even further mitigate potential contact with moisture. This will also reduce ventilation and other underground expenses required to make the mine MSHA-ready.

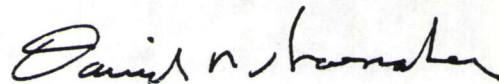
Holland Shepherd has indicated that the Small Fry Mine has an outstanding surface reclamation bond of about \$2,000 which Molycorp will assume once title to the property vests to Molycorp. The Bureau of Radiation Control has accepted our laboratory analyses confirming the character of the pile and has developed instructions for transporting the material to the Small Fry Mine.

All the above referenced information was discussed on October 1st at a meeting hosted by Mr. Shepherd at the Division Oil, Gas and Mining office in Salt Lake City. Messrs. Whitehead, Hulquist and Shepherd met with me, Mr. Morris and Mr. Reino Clark representing Molycorp and Unocal.

We trust that the information provided will be sufficient to allow you and your staff to confirm that: 1) there will be no potential degradation of groundwater; 2) a groundwater permit is not necessary; and 3) to recommend approval of underground storage at the Small Fry Mine.

We and Mr. Anderson believe that this solution is in the best interest of the State, its regulators and Molycorp. Furthermore, the NORM will be removed once and for all from public access, continued monitoring and maintenance.

Respectfully Submitted,



David R. Shoemaker  
Mine Manager

cc: Larry Anderson  
John Hulquist  
John Whitehead  
Holland Shepherd  
Reino Clark  
Gary Morris